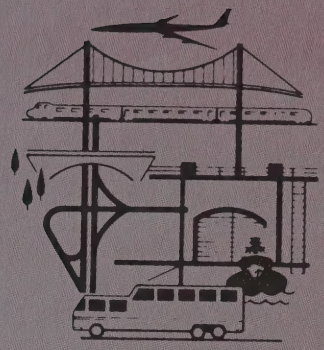
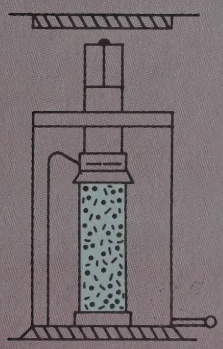
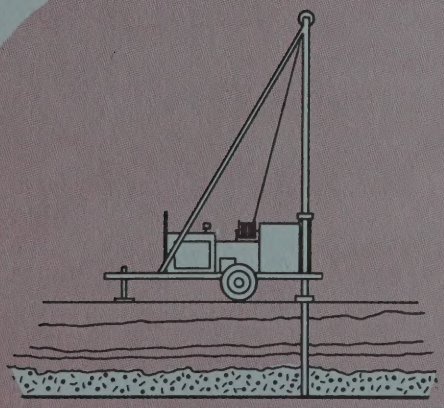
STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

RAYMOND T. SCHULER, COMMISSIONER

SOIL MECHANICS
BUREAU







CONTRACT FASTELD 73-1

TEST WELL REPORT
SOUTHERN TIER EXPRESSWAY
LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA
CHEMUNG COUNTY

June 1973

SM 238b (1/73)

MEMORANDUM
DEPARTMENT OF TRANSPORTATION

DATE July 10, 1973

SUBJECT TEST WELL REPORT, SOUTHERN TIER EXPRESSWAY,
LOWMAN-WAVERLY, PT. 1, FASTELD 73-1, CHEMUNG COUNTY

FROM L. H. Moore, Soil Mechanics Bureau, Room 102, Bldg. 7
By: W. P. Moody W. P. Moody
TO L. W. Hallenbeck, Regional Director, Region 6

cc J. Sternbach, Construction Subdivision, Room 406, Bldg. 5
M. D. Graham, Facilities Design Subdivision, Room 405, Bldg. 5
Attn: J. J. Ryan

Enclosed is a copy of a test well report prepared by Mr. Vance Bryant, Senior Engineering Geologist, describing work done under the subject contract.

Due to the high yield and low drawdown in the two wells, no specific recommendation regarding pumping rate and pump location was made. The favorable results will allow the State Architect leeway in designing the pump system.

Please contact this Bureau if you have any questions concerning this report.

WPM:FJG:MTC
Encl.

NYSDOT
Library
50 Wolf Road, POD 34
Albany, New York 12232

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
SOIL MECHANICS BUREAU

TEST WELL REPORT
FOR

SOUTHERN TIER EXPRESSWAY
LOWMAN-WAVERLY PT. 1

WESTBOUND REST AREA

By

Vance Bryant
Senior Engineering Geologist

June 1973

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
SOIL MECHANICS BUREAU

TEST WELL REPORT
FOR

SOUTHERN TIER EXPRESSWAY
LORDAN-NAVERLY PT. I

WESTBOUND REST AREA

By

Vance Bryant
Senior Engineering Geologist

June 1973

ABSTRACT

Test wells were constructed under Contract FASTELD 73-1 for the Westbound Rest Area on the Southern Tier Expressway in Chemung County. The work was completed in June, 1973.

Drilling and Test Data is included as obtained from records, samples and direct observation.

Included in the Appendices, one per well, are the results of drilling and pump test data as determined by the writer, as well as copies of the driller's logs. Also included are the results of all physical, chemical and bacteriological testing performed by a private laboratory on water samples obtained directly from each well.

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MEMORANDUM
DEPARTMENT OF TRANSPORTATION

DATE June 27, 1973

SUBJECT FASTELD 73-1
SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
CHEMUNG COUNTY, P.I.N. 6147.14-301

FROM Vance Bryant, Senior Engineering Geologist

TO W. P. Moody, Associate Soils Engineer

During the months of May and June, 1973, the writer assisted Mr. J. Dieter (EIC) of Region No. 6 in supervising and inspecting the construction of the test wells on the subject project. Drilling was initiated on May 7 and final samples taken for testing on June 8. All phases of the project were completed within the allotted quantities and with no significant difficulty. The desired yield was obtained and surpassed by a large margin, thereby allowing considerable leeway in the choice of pump size and location within each well. The static level (water table) should correlate closely with the seasonal river level elevation. There should be no lack of supply of water to the wells even in periods of severe dry weather.

The two wells were completed as screened wells in sand and gravel. To determine the depth of placement for the screens, both wells were drilled below good water bearing material into unsuitable material. Well No. 1 was drilled first, to a greater depth than well 2, to determine the nature of the subsurface material. Well No. 2 encountered similar strata and was, therefore, terminated at a shallower depth when fine grained material was encountered below good water bearing material. On the basis of the grain size analyses of the aquifer, variable slot screens were fabricated. The 50% size was used to determine the screen slot size due to problems always encountered in obtaining representative samples. The screens were placed at the same depth, 60 to 70 feet below ground, in both wells. Development of the wells proceeded smoothly and was satisfactorily completed within the allotted time period. Pump testing, step drawdown and continuous yield, also went smoothly with one exception. As shown in the test data for test well No.1 (Appendix A) a pump malfunction occurred during the step drawdown test. When the test was resumed

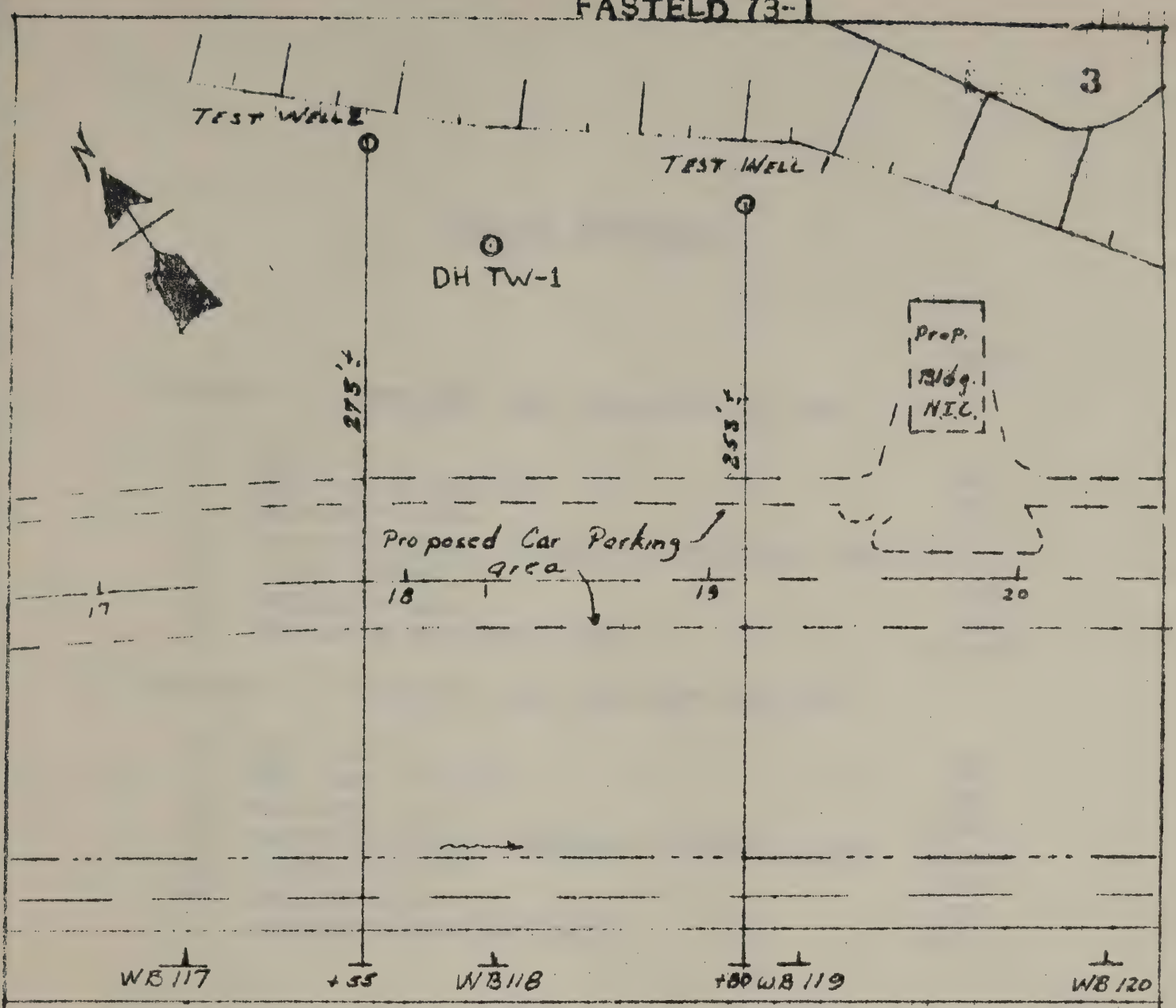
several days later, a check was made at the rate where the breakdown occurred (25 G.P.M.). No disagreement was noted in the drawdowns on the two days so the test was continued from that point.

Well drilling and pump test data based on the writer's observation and interpretation are included in the appendices which accompany this report. Also included in the appendices are copies of the driller's log for drilling, developing and testing the wells as furnished by the Randolph Well and Pump Company. Some difference will be noted in water levels between the writer's and the driller's report. This is due to different reference points, i.e. the top of casing and original ground respectively. The writer recommends using the O.G. measurements since short sections of casing were added to the total casing length upon completion of testing. This was done to bring the top of casing up to the required one to two feet above ground.

Chemical, physical and bacteriological test results, all of which are satisfactory, are included in the appendix for each respective well. This data has already been furnished to the State Architect for study in designing the water system.

VB:cb
Attachment

FASTFIELD 73-1



NOTES:

1. It is the intent of this contract to obtain two (2) wells each producing 15-20 G.P.M.
2. All well logs & capacity test data shall be forwarded to the Deputy Chief Engineer. (Research)
3. The contractors attention is called to the necessity of obtaining chemical and bacteriological samples for analysis as detailed in the specifications.
4. For item 63a through 631 in this proposal see the "State Architects Standard Specifications of Jan. 2, 1966, item 63-Well Construction" which is in Part III-general engineering specifications for unit Price contracts.

DEPARTMENT OF TRANSPORTATION
Region 6
Southern Tier Expressway Lowman-Waverly
Chemung County

Comfort Station Westbound Lane	Scale 1"=50'
Test Wells Plot Plan	6-18-71

LIST OF APPENDICES

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4)	BACTERIOLOGICAL, CHEMICAL & PHYSICAL DATA	A6 & 7
5)	SIEVE ANALYSIS	A8-11
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APPENDIX B - WESTBOUND REST AREA-TEST WELL NO. 2		
1)	WELL DATA	B1
2)	WELL LOG & DETAILS	B2
3)	PUMP TEST DATA	B3-5
4)	BACTERIOLOGICAL, CHEMICAL & PHYSICAL DATA	B6 & 7
5)	SIEVE ANALYSIS	B8-11
6)	DRILLER'S LOG	B12
7)	DRILLER'S PUMP TEST DATA	B13-16

APPENDIX A

WESTBOUND REST AREA-TEST WELL NO. 1

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 1

LOCATION

Centerline Station: WB 118+80
Offset: 253 Feet Left
Original Ground Elevation (O.G.): 832.6(±)

DRILLING DATA

Contractor: Randolph Well & Pump Company
Driller: Fran Haynes
Date Started: 5/7/73
Date Completed: 5/10/73

WELL DATA

Source of Water: Granular Material
Overburden: Sand & Gravel
Static Level During Drilling (Water Table): 42 To 43 Feet
Depth of Well: 81.5 Feet

TEST DATA

Date Started: 6/7/73
Date Completed: 6/8/73
Location of Pump Intake: 58(+) Feet
Static Level During Testing (Water Table): 42(-) Feet
Yield: 65 Gallons Per Minute
Drawdown: 7 Inches
Specific Capacity: 110(±) G.P.M. Per Foot of Drawdown

PUMP DATA

Make & Type: Goulds 3HP Submersible-Model UTM30412

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 1

WELL LOG	WELL DETAILS
	Top of Casing Elevation-834.6
	Original Ground Surface (O.G.)
Regraded Natural Material (Sand & Gravel)	Elevation-832.6 Drawdown, Pumping Rate-65 G.P.M.
	Depth 7 Inches-Elevation 832.0
Sand & Gravel	
Thin Silt & Clay Layer-30(±) Feet	
Sand & Gravel 0 To 58 Feet	Static Level During Testing Depth 42(-) Feet Elevation 790.6
	Pump Intake During Testing Depth 58(+) Feet-Elevation 774.6
Fine & Coarse Sand 58 To 64 Feet	Bottom of Casing-Top of Screen Depth 60 Feet-Elevation 772.6
Sand & Gravel 64 To 71 Feet	Bottom of 10 Foot Well Screen Depth 70 Feet-Elevation 762.6
Silt, Sand & Gravel 71 to 76 Feet	Backfill (70-81.5 Feet) Bank Run Sand & Gravel
Glacial Till 76 to 81.5 Feet	Bottom of Drilled Well Depth 81.5 Feet-Elevation 751.1

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 1

STEP DRAWDOWN TEST

Static Level During Test - 41 Feet 10 Inches Below Original Ground
Pump Intake During Test - 58(+) Feet Below Original Ground

Date	Time	Rate (GPM)	Dynamic Level (Feet)	Drawdown (Inches)	Comments
6/7/73	8:15 AM	10	-	0	Water Cloudy
	8:30 AM	10	41'10½"	½"	Water Clear
	8:45 AM	10	41'10½"	½"	
	9:00 AM	10	41'10½"	½"	
	9:15 AM	20	-	-	Increased Pumping Rate
	9:30 AM	20	41'11½"	1½"	Water Remained Clear
	9:45 AM	20	41'11½"	1½"	
	10:00 AM	20	41'11½"	1½"	
	10:15 AM	30	-	-	Increased Pumping Rate
	10:30 AM	30	42'½"	2½"	Water Remained Clear
	10:45 AM	30	42'½"	2½"	
	11:00 AM	30	42'½"	2½"	
	11:15 AM	40	-	-	Increased Pumping Rate
	11:30 AM	40	42'1½"	3½"	Water Remained Clear
	11:45 AM	40	42'1½"	3½"	
	12:00 Noon	40	42'1½"	3½"	
	12:15 PM	50	-	-	Increased Pumping Rate
	12:30 PM	50	42'3½"	5½"	Water Remained Clear
	12:45 PM	50	42'3"	5"	
	1:00 PM	50	42'3"	5"	
	1:15 PM	65	-	-	Increased Pumping Rate
	1:30 PM	65	42'5"	7"	(Maximum Pump Capacity)
	1:45 PM	65	42'5"	7"	Water Remained Clear

Date	Time	Rate (GPM)	Dynamic Level (Feet)	Drawdown (Inches)	Comments
6/7/73	2:00 PM	65	42'5"	7"	Water Remained Clear
	2:15 PM	65	42'5"	7"	Water Remained Clear
	2:30 PM	65	42'5"	7"	Water Remained Clear
	2:45 PM	65	42'5"	7"	Water Remained Clear
	3:00 PM	65	42'5"	7"	Water Remained Clear
	3:15 PM	65	42'5"	7"	Water Remained Clear
	3:30 PM	65	42'5"	7"	Water Remained Clear
	3:45 PM	65	42'5"	7"	Water Remained Clear
	4:00 PM	65	42'5"	7"	Water Remained Clear
	4:15 PM	65	42'5"	7"	End Test

Well disinfected and water recirculated until 5:15 PM.
Additional chlorine (HTH) added and allowed to stand overnight.

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 1

CONTINUOUS YIELD TEST

Static Level During Test - 41 Feet 11 Inches Below Original Ground
Pump Intake During Test - 58(+) Feet Below Original Ground

Date	Time	Rate (GPM)	Dynamic Level (Feet)	Drawdown (Inches)	Comments
6/8/73	7:00 AM	65	-	0	Water Rusty
	7:30 AM	65	42'6"	7"	Water Clear
	8:00 AM	65	42'6"	7"	
	8:30 AM	65	42'6"	7"	
	9:00 AM	65	42'6"	7"	
	9:30 AM	65	42'6"	7"	
	10:00 AM	65	42'6"	7"	
	10:30 AM	65	42'6"	7"	
	11:00 AM	65	42'6"	7"	
	11:30 AM	65	42'6"	7"	
	12:00 Noon	65	42'6"	7"	
	12:30 PM	65	42'6"	7"	
	1:00 PM	65	42'6"	7"	
	1:30 PM	65	42'6"	7"	
	2:00 PM	65	42'6"	7"	
	2:30 PM	65	42'6"	7"	
	3:00 PM	65	42'6"	7"	
	3:30 PM	65	42'6"	7"	
	4:00 PM	65	42'6"	7"	
	4:30 PM	65	42'6"	7"	
	5:00 PM	65	42'6"	7"	
	5:30 PM	65	42'6"	7"	
	6:00 PM	65	42'6"	7"	
	6:30 PM	65	42'6"	7"	
	7:00 PM	65	42'6"	7"	
	7:30 PM	65	42'6"	7"	
	8:00 PM	65	42'6"	7"	
	8:30 PM	65	42'6"	7"	
	9:00 PM	65	42'6"	7"	
	9:30 PM	65	42'6"	7"	
	10:00 PM	65	42'6"	7"	
	10:30 PM	65	42'6"	7"	End Pumping
	10:31 PM	65	41'11½"	-	Recovery
	10:32 PM	65	41'11"	-	Recovery
	11:00 PM	65	41'11"	-	End Test

Costello's Laboratory, Inc.
Charles V. Costello
Consulting Chemist

30 Allendale Road
Binghamton, N. Y. 13903
Phone: (607) 722-0030

RESULTS OF EXAMINATION OF WATER

LAB NO. 263/73

COLLECTED BY Ray Randolph

DATE COLLECTED 6/8/73

DATE REPORTED 6/12/73

NAME OF SUPPLY Well # 1

OWNER'S NAME [illegible]

ADDRESS

SAMPLING POINT Pastold 73-1

BACTERIA PER ML 200

(AGAR PLATE COUNT AT 35°)

COLIFORM GROUP Negative

MPN NO/100 ML less than 2.2 MK

THE RESULTS INDICATE THAT THE WATER WAS OF A SATISFACTORY SANITARY QUALITY WHEN THE SAMPLE WAS COLLECTED.

REMARKS:

Charles V. Costello

30 ALLENDALE ROAD
BINGHAMTON, N. Y. 13903
722 - 0030

COSTELLO'S LABORATORY INC.

SUCCESSOR TO NELSON & LAUDER
CHARLES V. COSTELLO
CONSULTING SANITARY CHEMIST

LABORATORY FOR
SANITARY & ANALYTICAL
CHEMISTRY

RESULTS OF EXAMINATION OF WATER

LABORATORY NO. C 60/73 COLLECTED BY Ray Randolph

DATE COLLECTED 6/9/73 RECEIVED 6/9/73 REPORTED 6/12/73

PLACE Fastold 73-1 (CITY, TOWN, VILLAGE OR HAMLET) COUNTY Chemung

SAMPLING POINT Well # 1

OWNER NYSDOT TENANT

BACTERIAL EXAMINATION

TEST FOR COLIFORM GROUP

BACTERIA PER ML. AGAR, 35oC - 24 HRS. M. P. N. * / 100 ML

THIS WATER WAS OF A SATISFACTORY SANITARY QUALITY WHEN THE SAMPLE WAS COLLECTED

PHYSICAL EXAMINATION

COLOR 2 TURBIDITY 2 ODOR + COLD Veg. + HOT

CHEMICAL EXAMINATION RESULTS IN PARTS PER MILLION

IRON (Fe)	.05		AMMONIA FREE (AS N)	OXYGEN CONSUMED (O)	
MANGANESE (Mn)	Neg. as Rec'd	NITROGEN CONSTITUENTS	ALB. AMMONIA (AS N)	CHLORIDES (Cl)	27.0
CARBON DIOXIDE (CO_2)	4.0		NITRITES (AS N)	TOTAL HARDNESS (AS $CaCO_3$)	168
FLUORIDES (F)			NITRATES (AS N) .95	ALKALINITY (AS $CaCO_3$)	123
TOTAL SOLIDS	270		LOSS OF IGNITION	CALCIUM (AS $CaCO_3$)	143
BICARBONATES	201		SULFATES 30	MAGNESIUM (AS $CaCO_3$)	25
SILICA			COPPER	ELECTROMETRIC pH VALUE	7.2
TOTAL PHOSPHATES			ORTHO PHOSPHATES	META PHOSPHATES	
SUSPENDED MATTER			TEMPT AIR ° F	TEMPT WATER °F	
DETERGENTS					

REMARKS:

MOST PROBABLE NUMBER
1=VERY SLIGHT, 2=SLIGHT, 3=DISTINCT, 4=DECIDED, 5=EXTREME

Charles V. Costello
CHARLES V. COSTELLO

INDEX OF SAND ANALYSIS

Randolph Well & Pump Co.

5/17/73

Well No. 1 for State of N.Y.

SAND ANALYSIS

UOP JOHNSON DIVISION

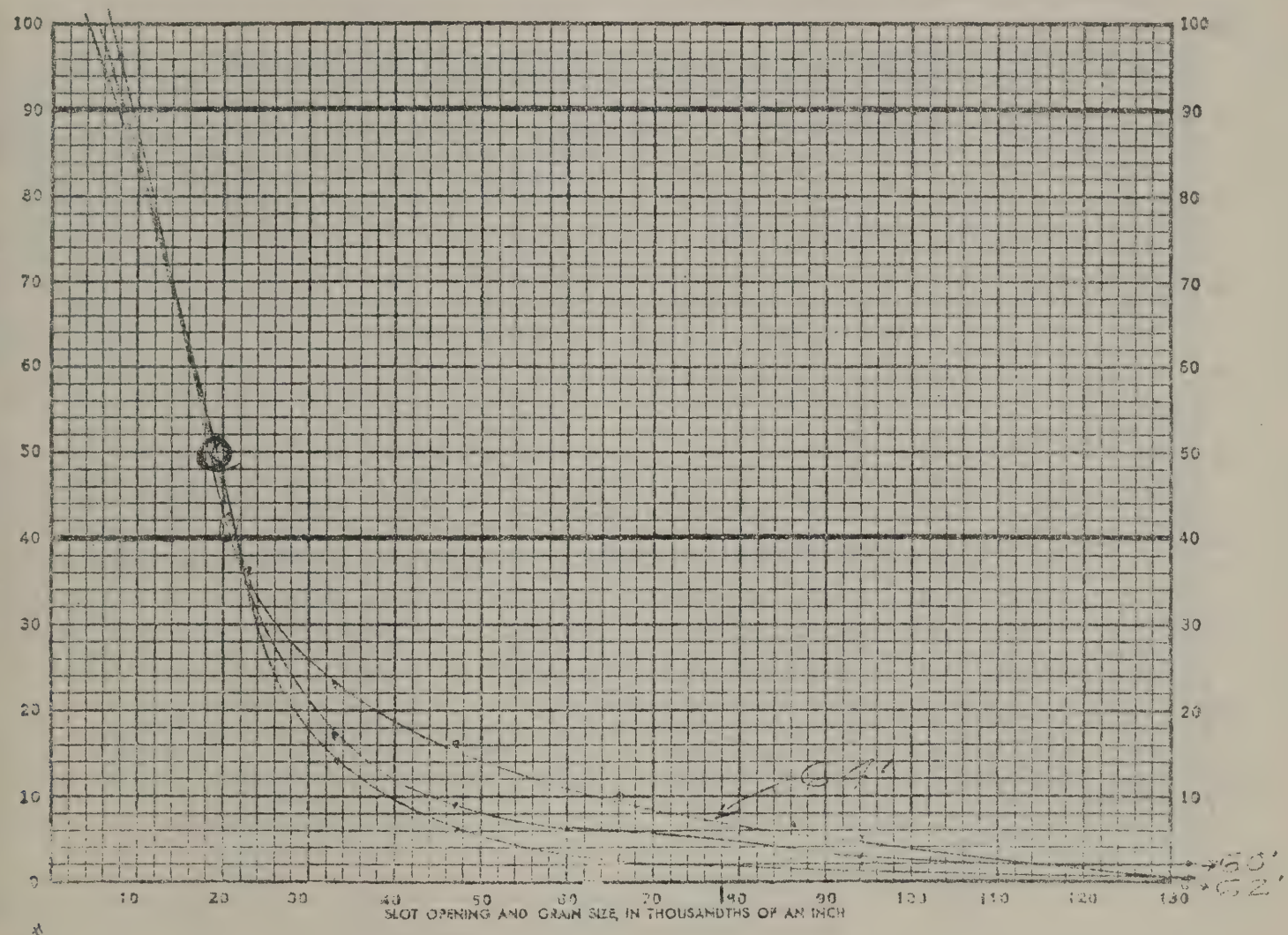
315 North Pierce Street
Saint Paul, Minn. 55104

Sample sent in by Randolph Well & Pump Co., Inc.

Town Cortland State N.Y. Date 5/17/73

From well of Well No. 1 for State of New York at Lowman Route 17

Remarks Contract No. Fasteld 73-1 57702 (Rest Area)



SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
	60'	62'	64'
.132	2	1	1
.094	3	2	5
.066	6	6	10
.047	9	8	16
.033	17	14	23
.023	30	33	36
.018	62	61	61
.012			
.008	96	97	94
.006	98	98	97
SCREEN SLOT			

Notes:

Recommended Slot Opening:

Recommended Screen: Dia. in. Length Ft.

By:

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

SAND ANALYSIS

UOP JOHNSON DIVISION

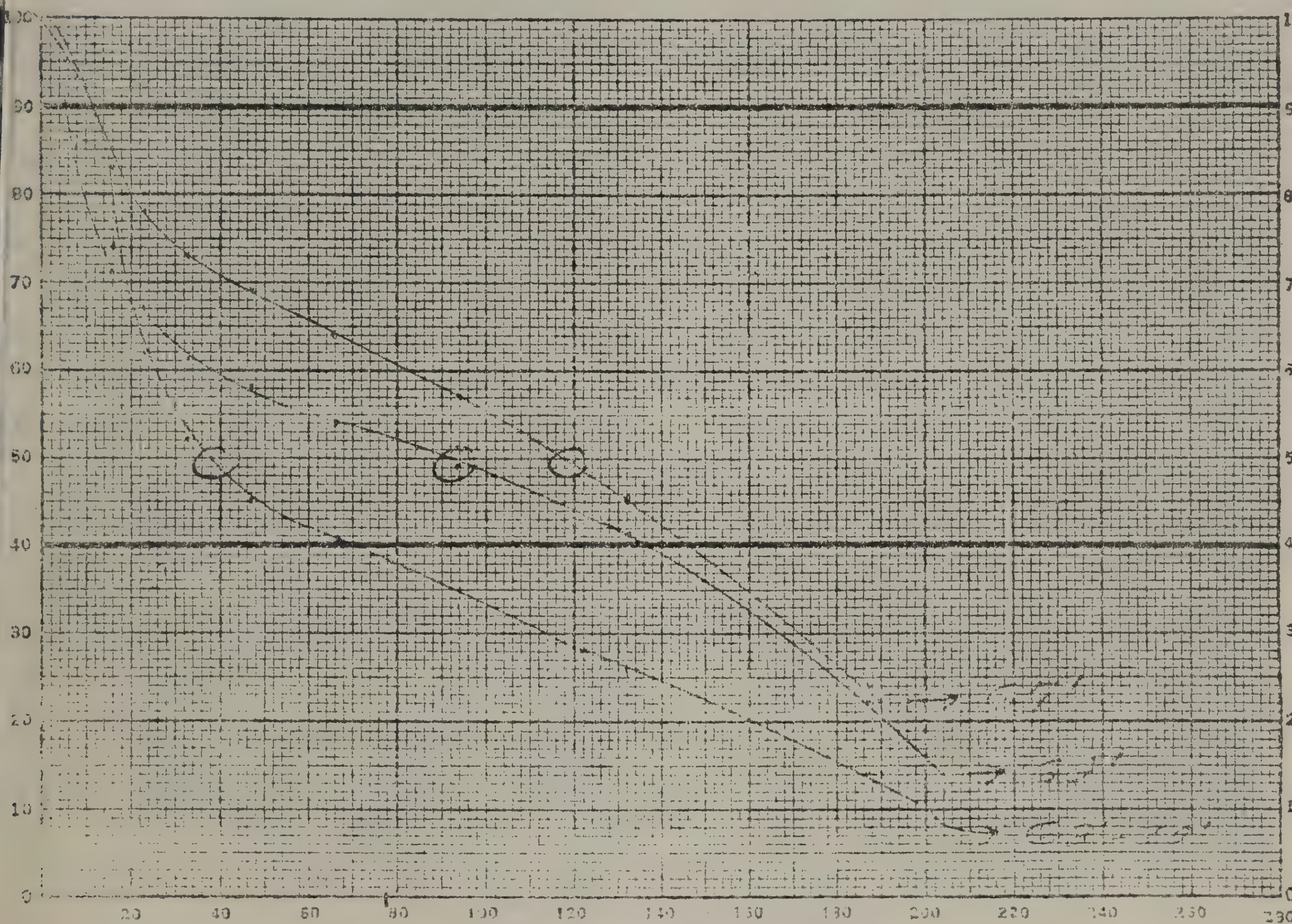
315 North Pierce Street
Saint Paul, Minn. 55104

Sample sent in by: Randolph Well & Pump Co., Inc.

Town: Cortland State: N.Y. Date: 5/17/73

From well of: Well No. 1 for State of New York at Lawman Roure 17

Remarks: Contract No. Fasteld 73-1 57702 (Rest Area)



SLOT OPENING AND GRAIN SIZE, IN THOUSANDTHS OF AN INCH

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
	67'	69'	[illegible]
.250			
.187	[illegible]	[illegible]	[illegible]
.132	45	[illegible]	[illegible]
.094	57	52	[illegible]
.066	64	54	40
.047	[illegible]	53	[illegible]
.033	[illegible]	[illegible]	[illegible]
.023	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
SCREEN SLOT [illegible]	95	90	97

Notes:

Recommended Slot Opening:

Recommended Screen: Dia. ______ in. Length ______ Ft.

______ By: ______

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

SAND ANALYSIS

UOP JOHNSON DIVISION

315 North Pierce Street
Saint Paul, Minn. 55104

Sample sent in by Randolph Well & Pump Co., Inc.

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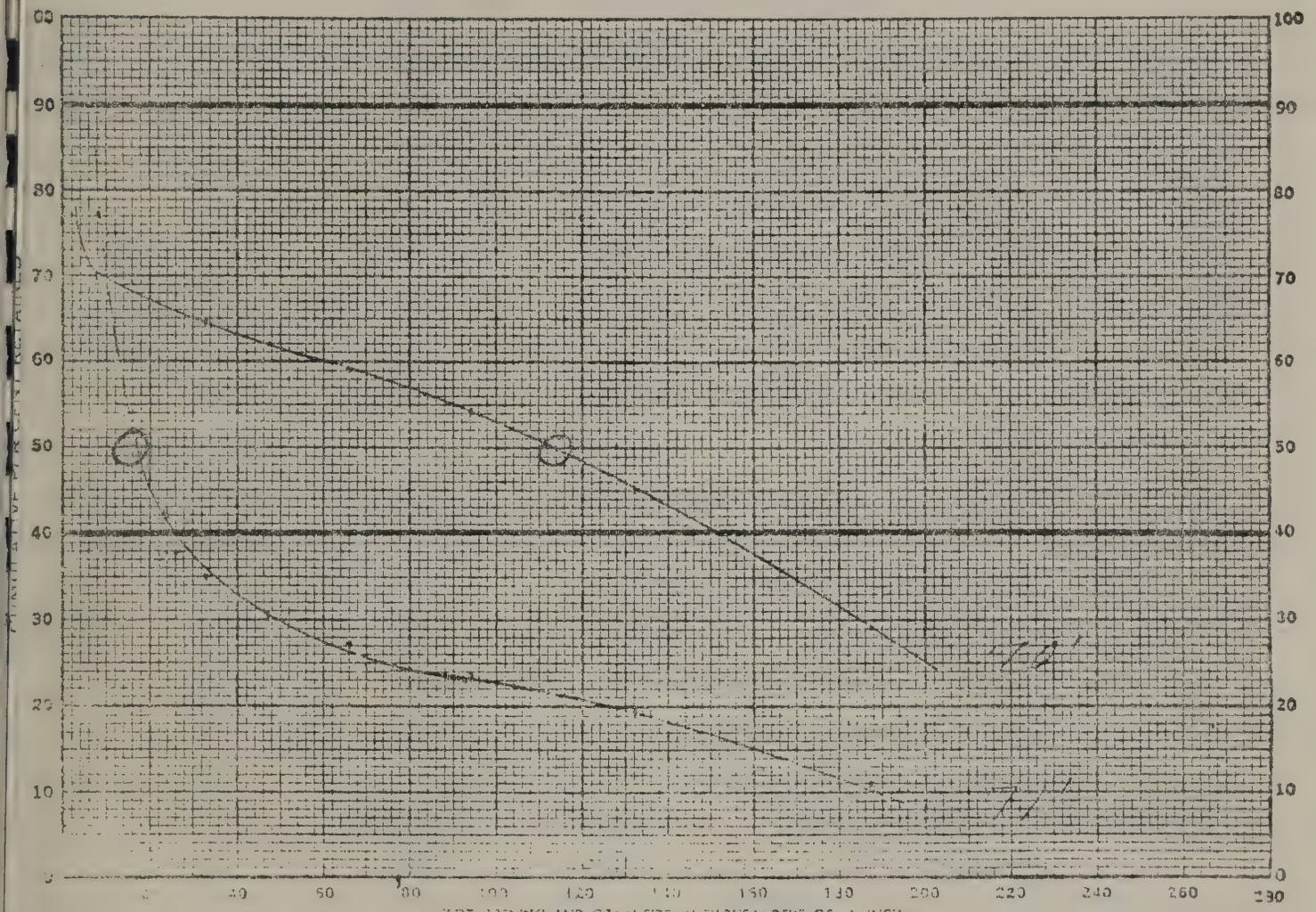


SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
.250			
.187			
.132			
.094			
.066			
.047			
.033			
.023			
SCREEN SLOT .006	70	86	

Notes:

Recommended Slot Opening:

Recommended Screen: Dia. in. Length Ft.

By:

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

Cortland, N. Y. 1 of 2 Invoice No. WELL

er's Name DEPT of TRANSPORTATION Address LOWMAN, N.Y. - Rte 17

No. FA LD 73-1 Size of Well 6" Mach. No. LD Driller HAYN

SAND GPM. Sec Test Sheet Down Total Depth in Feet

Start MAY 7-1973 Date Completed

ING EET	ROCK DRILLED	GASOLINE IN GALS.	FORMATION AND REMARKS
			0-5 ft - Dry Gravel
			5-10 - Dry Gravel
			10-15 - Dry Gravel
			15-20 - Dry Gravel
			20-25 - Dry Gravel
			25-30 - Dry Gravel
			30-35 - Gravel, sand + clay
			35-40 - Dry gravel + little clay
			40-45 - fine sand + gravel, first water
			48 - fine sand + gravel, some water
			49 - fine sand + gravel, 6 gpm.
			51 - Very good gravel, 8 gpm, S.L. - 47'
			53 - Some gravel - S.L. 43'
			56 - good gravel - 10 gpm - S.L. - 42'
			58 - good gravel - 10 gpm - S.L - 43'
			60 - good fine sand + gravel - S.L 43'
			62 - fine sand, heaves in pipe
			64 - nice line gravel + sand, heaves in pipe
			67' - still heaves in pipe
			69'6" - Shut water off - pulled ck to get sand
			70' - fine sand, fine + coarse gravel
			71' - fine sand, large gravel - bailed 30 GPM
			73' - sand + gravel - fine to very coarse
			74' - Very fine sand + silt, some large stones
			75' - Very fine sand + silt, some large stones
			76' - Very fine sand + silt, some large stones
			78-79 - sand + gravel + clay
			79-80 - Hardpan some gravel
			80-81½ - Hardpan Water 7½ GPM.

EMARKS: Filled bottom w/ bank run gravel + pulled casing back to 70

RANDOLPH [illegible] PUMP CO.

Contract # [illegible] 73-1 R. D. 4, CORTLAND, N. Y. Sheet 1 of 2

measurements taken 4" above G.L.

RECORD OF TEST

Well No. 1 Date 6-7-73

For Dept of Transportation - State of New York

Well Located At [illegible] N.Y.

[TIM]E	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.		
8:00			42'6"			
8:15	42'6½"			10		
8:30	42'6½"			10		
8:45	42'6½"			10		
9:00	42'6½"			10		
9:15	42'6¾"	increased		20		
9:30	42'7½			20		
9:45	42'7½			20		
10:00	42'7½			20		
10:15	42'7½"	increased		30		
10:30	42'8½"			30		
10:45	42'8½"			30		
11:00	42'8½"			30		
11:15	42'8½"	increased		40		
11:30	42'9½"			40		
11:45	42'9½"			40		
12:00	42'9½"			40		
12:15	42'9½"			50		

[Ma]ke & size of engine or motor used: 3-H.P. GouLDS Submersible # UTM30412

Remarks: Electric Probe used To measure pumping Levels

" " Temperature 52°

[DES]CRI[PTION] OF PUMP USED

[GOUL]DS SUB [illegible] 30412

[STA]GES 10

[illegible] - H.P.

[T]OP [illegible]

DISCHARGE

[DE]PTH OF S[ETTING] 59'

[SU]CTION FT. INCH PIPE

SIZE OF PULLEY

INCH ORIFICE ON

WIDTH OF WEIR

DEPTH AIR LINE

AIR PRES. WHEN NOT PUMPING

STATIC LEVEL 42'6"

Height of gauge above base

WITNESS FOR PURCHASER

Ray Randolph

FOR: RANDOLPH WELL & PUMP CO.

Contract # Fastold 73-1 R. D. 4, CORTLAND, N. Y.

Pipe 4" above G.L.

Sheet 2 of 2

RECORD OF TEST

Well No. 1 Date 6-7-73

For Dept of Transportation - State of New York

Well Located At Lowman N.Y.

[illegible]NE	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.		
12:30	42' 11½		42'6"	50		
12:45	42' 11"			50		
1:00	42' 11"			50		
1:15	42' 11"	increased		65		
1:30	43' 1"			65		
1:45	43' 1"			65		
2:00	43' 1"			65		
2:15	43' 1"			65		
2:30	43' 1"			65		
3:00	43' 1"			65		
3:15	43' 1"			65		
3:30	43' 1"			65		
3:45	43' 1"			65		
4:15	43' 1"			65		
	Chlorinate Well and re-cycled for 1 hr					

[illegible]e & size of engine or motor used: 3-N.P. Goulds Submersible # UTM 30412

[illegible]arks:

DESCRIPTION OF PUMP USED

[illegible]PE Goulds Sub

[illegible]AGES 10

[illegible] 6"

[illegible] 3

[illegible]SCHARGE 3"

[illegible]PTH OF SETTING 59'

[illegible]TION 2" FT. INCH PIPE

SIZE OF PULLEY

INCH ORIFICE ON

WIDTH OF WEIR

DEPTH AIR LINE

AIR PRES. WHEN NOT PUMPING

STATIC LEVEL

Height of gauge above base

WITNESS FOR PURCHASER

Ray Randolph

FOR: RANDOLPH WELL & PUMP CO.

RANDOLPH [illegible] CO.

R. D. 4, CORTLAND, N. Y. Sheet 1 of 2

16 Hr Pump Test

RECORD OF TEST

Well No. 1 Date 6-1-73

For Dept of Transportation - State of New York

Well Located At Lansing, Dist.

TIME	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.		
1:00			42'7"			
1:15	43'1"			65		
7:30	43'1"			65		
7:45	43'1"			65		
8:00	43'1"			65		
9:00	43'1"			65		
10:00	43'1"			65		
11:00	43'1"			65		
12:00	43'1"			65		
1:00	43'1"			65		
2:00	43'1"			65		
3:00	43'1"			65		
4:00	43'1"			65		
5:00	43'1"			65		
6:00	43'1"			65		
7:00	43'1"			65		

Make & size of engine or motor used: 3-H.P. Goulds Submersible # 4TM30412

Remarks:

Water temperature 50°

DESCRIPTION OF PUMP USED

TYPE Goulds Jet

STAGES 16

SIZE 6"

PUMP NO. 3

DISCHARGE 2"

DEPTH OF SETTING 59'

SIZE 2" FT. INCH PIPE

SIZE OF PULLEY

INCH ORIFICE ON

WIDTH OF WEIR

DEPTH AIR LINE

AIR PRES. WHEN NOT PUMPING

STATIC LEVEL

Height of gauge above base

WITNESS FOR PURCHASER

FOR: RANDOLPH WELL & PUMP CO.

RANDOLPH WELL PUMP CO.

R. D. 4, CORTLAND, N. Y. Sheet 2 of 2

Contract # Fastfield # 73-1

RECORD OF TEST

Well No. 1 Date 6-8-73

For Dep't of Transportation - State of New York

Well Located At Lowman

ME	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.		
			42'7"			
:00	43'1"			65		
:00	43'1"			65		
0:00	43'1"			65		
0:30	43'1"			65		
		Recovery				
0:30	43'1"					
0:31	42'7½"					
0:32	42'7½					
0:33	42'7½"					
0:34	42'7½"					
0:35	42'7½"					
0:40	42'7½"					
0:45	42'7½"					
0:50	42'7½"					
0:55	42'7½"					
11:00	42'7½"					

e & size of engine or motor used: 3 H.P. Goulds Submersible Pump # UTM 30412

arks:

DESCRIPTION OF PUMP USED

Submersible

10

6"

P NO. 8"

SCHARGE 2"

TH OF SETTING 59"

TION 2" FT. INCH PIPE

SIZE OF PULLEY

INCH ORIFICE ON

WIDTH OF WEIR

DEPTH AIR LINE

AIR PRES. WHEN NOT PUMPING

STATIC LEVEL

Height of gauge above base

WITNESS FOR PURCHASER

A-16 FOR: RANDOLPH WELL & PUMP CO.

APPENDIX B

WESTBOUND REST AREA-TEST WELL NO. 2

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 2

LOCATION

Centerline Station: WB 117+55
Offset: 273 Feet Left
Original Ground Elevation (O.G.): 832.6(±)

DRILLING DATA

Contractor: Randolph Well & Pump Co.
Driller: Fran Haynes
Date Starter: 5/10/73
Date Completed: 5/16/73

WELL DATA

Source of Water: Granular Material
Overburden: Sand & Gravel
Static Level During Drilling (Water Table): 41 to 42 Feet
Depth of Well: 73 Feet

TEST DATA

Date Started: 6/1/73
Date Completed: 6/6/73
Location of Pump Intake: 58(+) Feet
Static Level During Testing (Water Table): 42(-) Feet
Yield: 65 Gallons Per Minute
Drawdown: 4 Feet 4 Inches
Specific Capacity: 15(+) G.P.M. Per Foot of Drawdown

PUMP DATA

Make & Type: Goulds 3 HP Submersible-Model UTM 30412

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 2

WELL LOG	WELL DETAILS
	Top of Casing Elevation - 835.0 Original Ground Surface (O.G.)
Regraded Natural Material (Sand & Gravel)	Elevation 832.6 Drawdown, Pumping Rate-65 G.P.M. Depth 4 Feet 4 Inches-Elev. 828.3(±)
Sand & Gravel 0 To 30 Feet	
Clay, Silt Sand & Gravel 30 To 54 Feet	Static Level During Testing Depth 42(-) Feet-Elevation 790.6
	Pump Intake During Testing Depth 58(+) Feet-Elevation 773.6
Sand & Gravel 54 To 70 Feet	Bottom of Casing-Top of Screen Depth 60 Feet-Elevation 772.6
	Bottom of 10 Foot Well Screen Depth 70 Feet-Elevation 762.6
Silt, Sand & Gravel 70 To 73 Feet	*Bottom of Drilled Well Depth 73 Feet-Elevation 759.6

*Well backfilled from 73 to 70 feet with bank run sand & gravel

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 2

STEP DRAWDOWN TEST

Static Level During Test - 41 Feet 10 Inches Below Original Ground
Pump Intake During Test - 58(+) Feet Below Original Ground

Date	Time	Rate (GPM)	Dynamic Level (Feet)	Drawdown (Feet)	Comments
6/1/73	8:30 AM	10	-	0	Water Cloudy
	8:45 AM	10	42'6"	8"	Water Clear
	9:00 AM	10	42'6"	8"	
	9:15 AM	10	42'6"	8"	
	9:30 AM	15	-	-	Increased Pumping Rate
	9:45 AM	15	42'8"	10"	Water Remained Clear
	10:00 AM	15	42'8"	10"	
	10:15 AM	15	42'8"	10"	
	10:30 AM	20	-	-	Increased Pumping Rate
	10:45 AM	20	42'8"	1'2"	Water Remained Clear
	11:00 AM	20	43'0"	1'2"	
	11:15 AM	20	43'0"	1'2"	
	11:30 AM	25	-	-	Increased Pumping Rate
	11:45 AM	25	43'3"	1'5"	Water Remained Clear
	12:00 Noon	25	43'3"	1'5"	
	12:15 PM	25	43'3"	1'5"	
	12:30 PM	Attempted to increase pumping rate-unsuccessfully, Pump malfunction stopped test for repairs. New pump in service 6/5/73.			
6/5/73	1:00 PM	25	New static level 41'11" below O.G.		Continue Test
	1:15 PM	25	43'5"	1'6"	Water Clear
	1:30 PM	25	43'5"	1'6"	
	1:45 PM	25	43'5"	1'6"	
	2:00 PM	37.5	-	-	Increased Pumping Rate
	2:15 PM	37.5	44'2"	2'3"	Water Remained Clear

Date	Time	Rate (GPM)	Dynamic Level (Feet)	Drawdown (Feet)	Comments
6/5/73	2:30 PM	37.5	44'2"	2'3"	
	2:45 PM	37.5	44'2"	2'3"	
	3:00 PM	48.5	-	-	Increased Pumping Rate
	3:15 PM	48.5	45'2½"	3'3½"	Water Remained Clear
	3:30 PM	48.5	45'2½"	3'3½"	
	3:45 PM	48.5	45'2½"	3'3½"	
	4:00 PM	65	-	-	Increased Pumping Rate
	4:15 PM	65	46'2¼"	4'3¼"	(Maximum Pump Capacity)
	4:30 PM	65	46'3½"	4'4½"	Water Remained Clear
	4:45 PM	65	46'3½"	4'4½"	
	5:00 PM	65	46'3½"	4'4½"	End Test

SOUTHERN TIER EXPRESSWAY, LOWMAN-WAVERLY PT. 1
WESTBOUND REST AREA-TEST WELL NO. 2

CONTINUOUS YIELD TEST

Static Level During Test - 42.0 Feet Below Original Ground
Pump Intake During Test - 58(+) Feet Below Original Ground

Date	Time	Rate (GPM)	Dynamic Level (Feet)	Drawdown (Feet)	Comments
6/6/73	7:00 AM	65	-	0	Water Rusty
	7:15 AM	65	46'4"	4'4"	Water Clear
	7:30 AM	65	46'4"	4'4"	
	7:45 AM	65	46'4"	4'4"	
	8:00 AM	65	46'4"	4'4"	
	9:00 AM	65	46'4"	4'4"	
	10:00 AM	65	46'4"	4'4"	
	11:00 AM	65	46'3½"	4'3½"	
	12:00 Noon	65	46'3½"	4'3½"	
	1:00 PM	65	46'4"	4'4"	
	2:00 PM	65	46'4"	4'4"	
	3:00 PM	65	46'4"	4'4"	
	4:00 PM	65	46'4"	4'4"	
	5:00 PM	65	46'4"	4'4"	
	6:00 PM	65	46'4"	4'4"	
	7:00 PM	65	46'4"	4'4"	
	8:00 PM	65	46'4"	4'4"	
	9:00 PM	65	46'4"	4'4"	
	10:00 PM	65	46'4"	4'4"	
	10:30 PM	65	46'4"	4'4"	End Pumping
	10:31 PM	-	42'2"	-	Recovery
	10:34 PM	-	42'1 3/4"	-	Recovery
	10:45 PM	-	42'1½"	-	Recovery
	10:55 PM	-	42'1¼"	-	Recovery
	11:00 PM	-	42'1¼"	-	End Test

Costello's Laboratory, Inc.
Charles V. Costello
Consulting Chemist

30 Allendale Road
Binghamton, N. Y. 13903
Phone: (607) 722-0030

RESULTS OF EXAMINATION OF WATER

LAB NO. 262/73

COLLECTED BY Ray Randolph

DATE COLLECTED 6/6/73

DATE REPORTED 6/12/73

NAME OF SUPPLY Rest Area Well # 2

OWNER'S NAME N YSDOT

ADDRESS

SAMPLING POINT Well # 2 Test Pump

BACTERIA PER ML 30

(AGAR PLATE COUNT AT 35°)

COLIFORM GROUP Negative

MPN NO/100 ML less than 2.2 OK

THE RESULTS INDICATE THAT THE WATER WAS OF A SATISFACTORY SANITARY QUALITY WHEN THE SAMPLE WAS COLLECTED.

REMARKS:

Charles V. Costello

30 ALLENDALE ROAD
BINGHAMTON, N. Y. 13903
722 - 0030

COSTELLO'S LABORATORY INC.

SUCCESSOR TO NELSON & LAUDER
CHARLES V. COSTELLO
CONSULTING SANITARY CHEMIST

LABORATORY FOR
SANITARY & ANALYTICAL
CHEMISTRY

RESULTS OF EXAMINATION OF WATER

LABORATORY NO. C 61/73 COLLECTED BY ~~Ray Randolph~~

DATE COLLECTED ~~6/7/73~~ RECEIVED ~~6/7/73~~ REPORTED 6/12/73

PLACE ~~Contract Fastcld 73-1~~ (CITY, TOWN, VILLAGE OR HAMLET) COUNTY ~~Chemung~~

SAMPLING POINT ~~Well # 2~~

OWNER ~~NYS DOT~~ TENANT

BACTERIAL EXAMINATION

BACTERIA PER ML. AGAR, 35oC - 24 HRS. _____ TEST FOR COLIFORM GROUP

M. P. N. * / 100 ML _____

THIS WATER WAS _____ OF A SATISFACTORY SANITARY QUALITY WHEN THE SAMPLE WAS COLLECTED

PHYSICAL EXAMINATION

COLOR 2 TURBIDITY 2 ODOR + COLD Veg. + HOT _____

CHEMICAL EXAMINATION — RESULTS IN PARTS PER MILLION

IRON (Fe)	.06	NITROGEN CONSTITUENTS	AMMONIA FREE (AS N)	OXYGEN CONSUMED (O)	
MANGANESE (Mn)	neg.		ALB. AMMONIA (AS N)	CHLORIDES (Cl)	22
CARBON DIOXIDE (CO_2)	as Rec'd 6		NITRITES (AS N)	TOTAL HARDNESS (AS $CaCO_3$)	155
FLOURIDES (F)			NITRATES (AS N) 1.5	ALKALINITY (AS $CaCO_3$)	97
TOTAL SOLIDS	231		LOSS OF IGNITION	CALCIUM (AS $CaCO_3$)	130
BICARBONATES	116		SULFATES 35	MAGNESIUM (AS $CaCO_3$)	25
SILICA			COPPER	ELECTROMETRIC PH VALUE	7.4
TOTAL PHOSPHATES			ORTHO PHOSPHATES	META PHOSPHATES	
SUSPENDED MATTER			TEMPT AIR ° F	TEMPT WATER °F	
DETERGENTS					

REMARKS:

Charles V. Costello

CHARLES V. COSTELLO

* MOST PROBABLE NUMBER

+1=VERY SLIGHT, 2=SLIGHT, 3=DISTINCT, 4=DECIDED, 5=EXTREME

INDEX OF SAND ANALYSIS

Randolph Well & Pump Co.

5/17/73

Well No. 2 for State of N.Y.

SAND ANALYSIS

UOP JOHNSON DIVISION

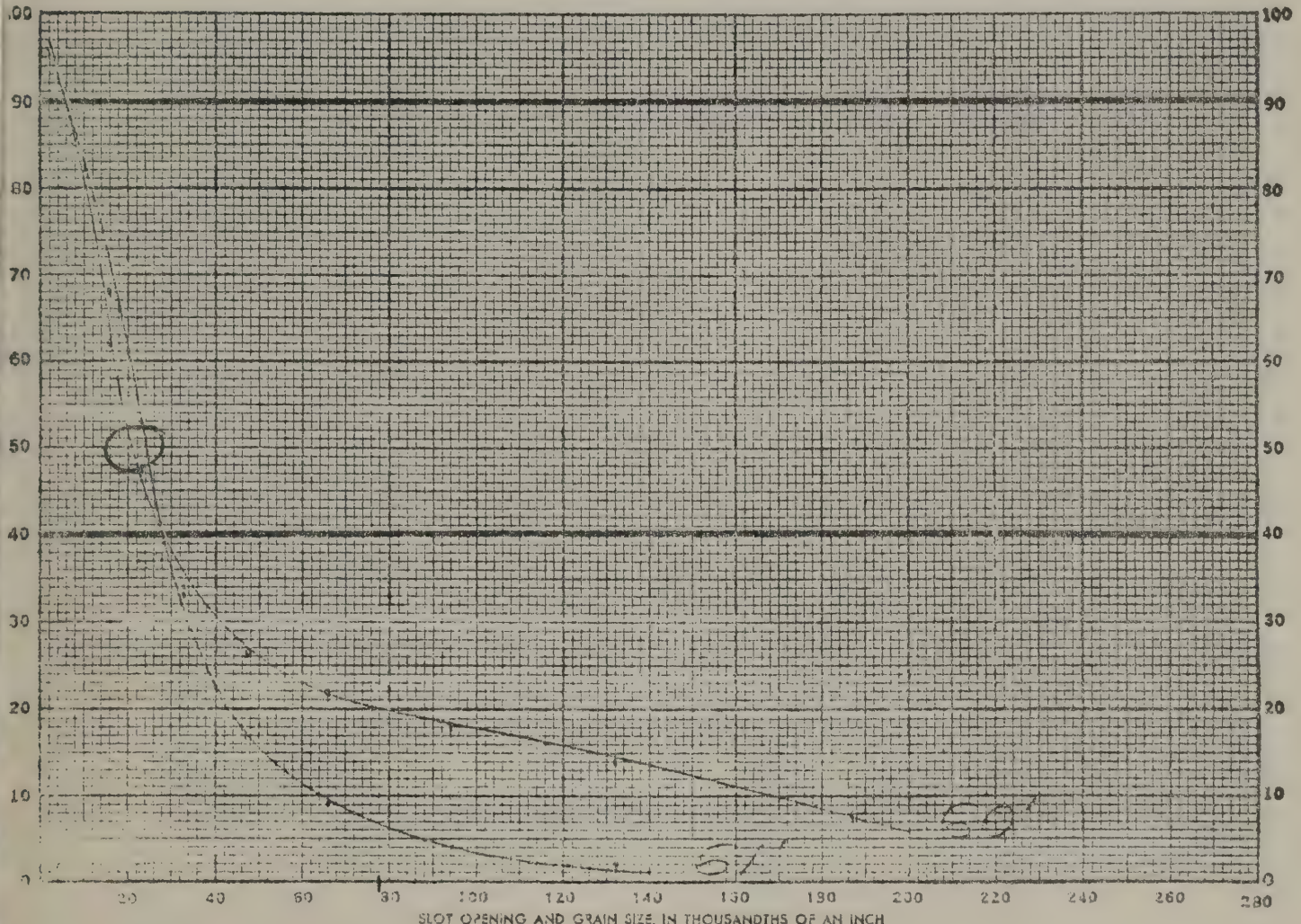
315 North Pierce Street
Saint Paul, Minn. 55104

Sample sent in by Randolph Well & Pump Co., Inc.

Town Cortland State N.Y. Date 5/17/73

From well of Well No. 2 for State of New York at Lourman Route 17

Remarks Contract No. Fasteld 73-1 57702 (Rest Area)



U.S. SIEVE OPENINGS

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
.250	60	61	
.187	6	2	
.132	14	2	
.094	18	4	
.065	22	9	
.047	26	17	
.033	34	33	
.023	47	53	
.016	62	68	
	72	82	
SCREEN SLOT	100 - 91	90	

Notes:

Recommended Slot Opening:

Recommended Screen: Dia. in. Length Ft.

By:

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

SAND ANALYSIS

UOP JOHNSON DIVISION

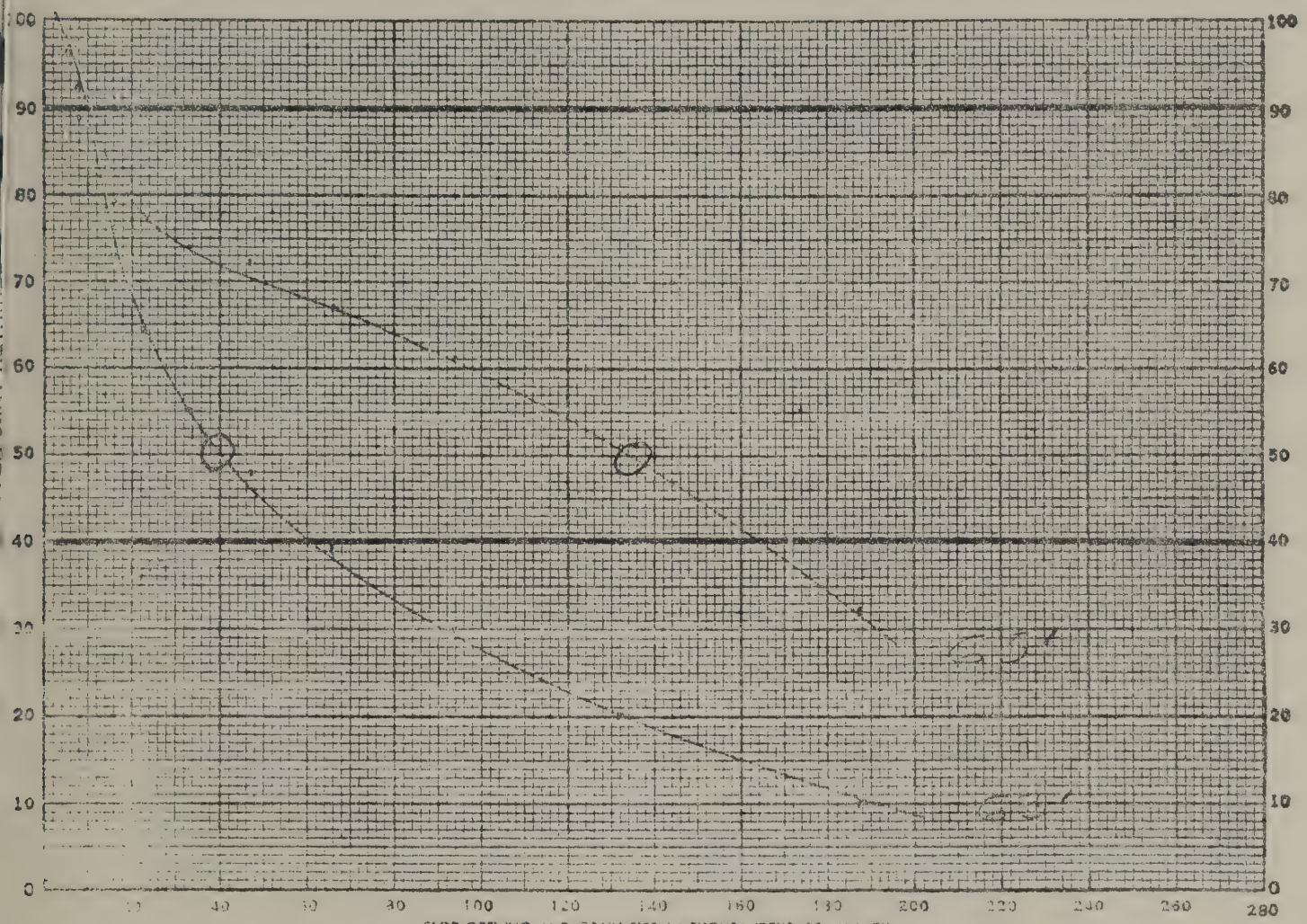
315 North Pierce Street
Saint Paul, Minn. 55104

Sample sent in by Randolph Well & Pump Co., Inc.

Town Cortland State N.Y. Date 5/17/73

From well of Well No. 2 for State of New York at Lowman Route 17

Remarks Contract No. Fasteld 73-1 57702 (Rest Area)



US

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
.250	63	65	
.187	10	32	
.132			
.094	20	51	
.066	30	67	
.047	45	72	
.033			
SCREEN SLOT	.096	35	

Notes:

Recommended Slot Opening:

Recommended Screen: Dia. in. Length Ft.

By:

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

SAND ANALYSIS

UOP JOHNSON DIVISION

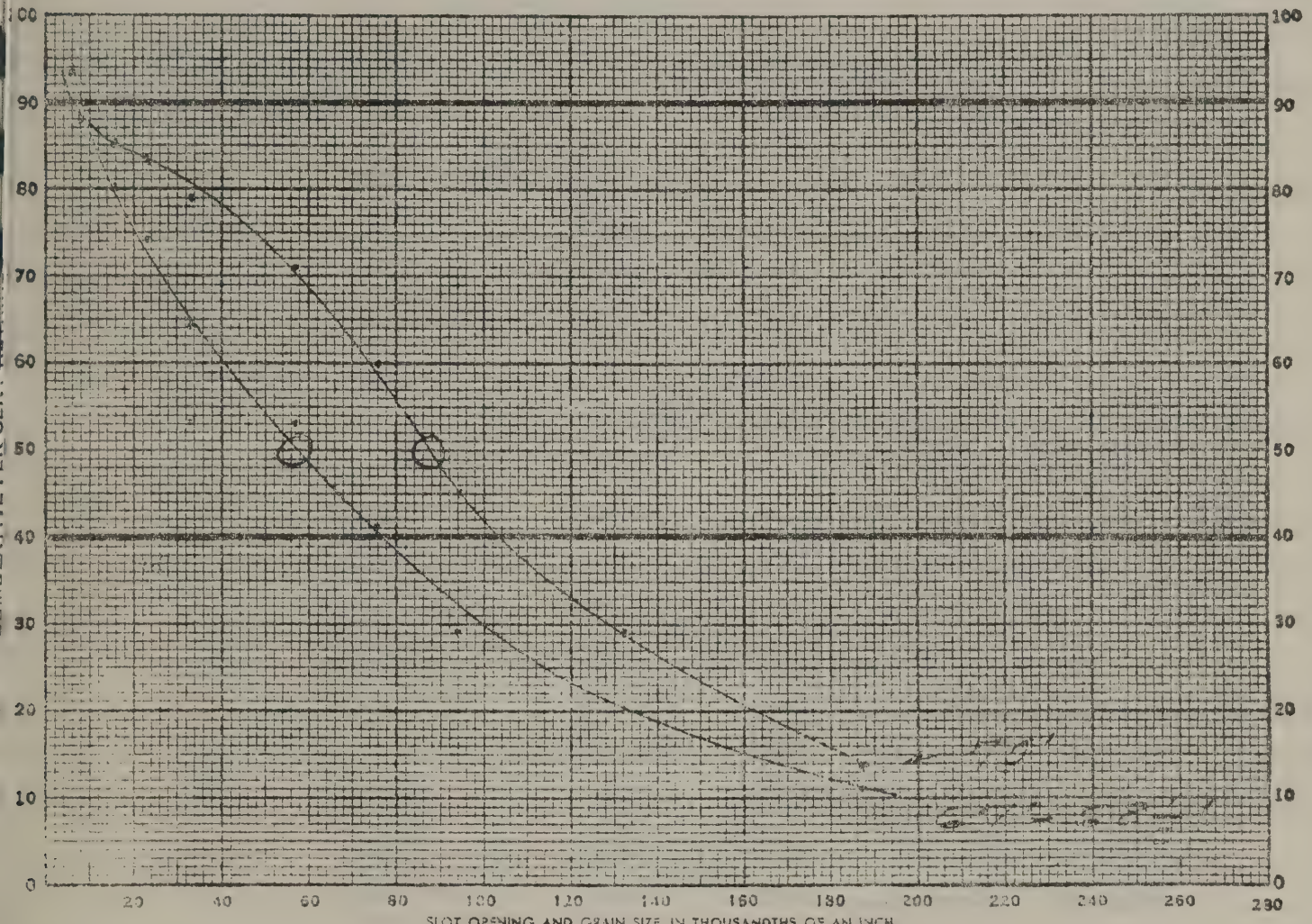
315 North Pierce Street
Saint Paul, Minn. 55104

Sample sent in by Randolph Well & Pump Co., Inc.

Town Cortland State N.Y. Date 5/17/73

From well of Well No. 2 for State of New York at Lapman Route 17

Remarks Contract No. Fasteld 73-1 57702 (Rest Area)



US.

SIEVE OPENINGS	CUMULATIVE PER CENT RETAINED		
.250	27-68½	70	
.187	11	14	
.132			
.094	29	43	
.066	41	60	
.047	53	71	
.033			
.023	74		
.016	80	85	
.011	89	90	
SCREEN SLOT	.005-.93		

8/12

Notes:

Recommended Slot Opening:

Recommended Screen: Dia. in. Length Ft.

By:

SO MANY CONSIDERATIONS ENTER INTO THE MAKING OF A GOOD WELL THAT, WHILE WE BELIEVE SLOT SIZES FURNISHED OR RECOMMENDED FROM SAND SAMPLES ARE CORRECT WE ASSUME NO RESPONSIBILITY FOR THE SUCCESSFUL OPERATION OF JOHNSON WELL SCREENS

RANDOLPH WELL & PUMP CO., INC.
Cortland, N. Y.

DRILLER'S LOG

~~Invoice No.~~ WELL #2

er's Name DEP't of TRANSPORTATION Address LOWMAN N.Y. - RTE 17

ract No. FASTELD 73-1 Size of Well 6" Mach. No. 10 Driller HAYNE

GRAVEL-SAND G.P.M. SEE TEST Sheet Draw Down Total Depth in Feet 72

Started MAY 10 - 1973 Date Completed

NG EET	ROCK DRILLED	GASOLINE IN GALS.	FORMATION AND REMARKS
			0-5 ft. - Dry gravel
			5-10 - Dry gravel
			10-15 - Dry gravel
			15-20 - Dry gravel
			20-25 - Dry gravel
			25-30 - Boulder fine & medium gravel - some clay
			30-35 - sand, gravel & clay balls
			35-40 - sand, fine & coarse gravel, hard pan
			40-45 - sand, gravel, hard pan
			45-50 - sand, gravel, hard pan
			50-54 - sand, gravel, hard pan
			55-60 - Water, sand & gravel - Static Level - 48'
			61' - Water, Static level - 41', sand & gravel
			63' - water, Static level - 42', sand & gravel
			65' - sand & coarse gravel - Water
			67-68 - sand & Coarse - gravel - Water
			70-72 - Sand Very silty -

MARKS:

RANDOLPH WELL & PUMP CO. — Sheet 1 of 2

R. D. 4, CORTLAND, N. Y.

Control # FASTELD 73-1 — STEP DRAW DOWN TEST

Measurements taken from top of casing 9" above G.L.

RECORD OF TEST

Well No. 2 — Date 5-31-73

For Dept of Transportation – State of New York

Well Located At Fowman N.Y.

[illegible]E	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.		
[illegible]:30			42'1"	10		
[illegible]45	43'9"			10		
[illegible]00	42'9"			10		
[illegible]:15	42'9"			10		
[illegible]:30	42'11"	increased to 15 GPM.		15		
[illegible]:45	42'11"			15		
[illegible]:00	4[illegible]'11"			15		
[illegible]:15	42'11"			15		
[illegible]:30	43'3"	increased to 15 GPM.		20		
[illegible],45	4[illegible]'3"			20		
[illegible]:00	43'3"			20		
[illegible]:15	43'3"			20		
[illegible]:30	4[illegible]'6"	increased to 25 GPM.		25		
[illegible]:45	[illegible]6"			25		
[illegible]:00	[illegible]6"			25		
[illegible]2:15	[illegible]6"			25		
2:30	4[illegible]'6"			25		

[illegible]e & size of engine or motor used: 3-H.P. Goulds Submersible #UD64HH12-857.

[illegible]arks: Electric Probe used to measure pumping levels.
ALL measurements TAKEN 9" above G.L.

DESCRIPTION OF PUMP USED	SIZE OF PULLEY
[illegible]	INCH ORIFICE ON
[illegible]	WIDTH OF WEIR
[illegible]	DEPTH AIR LINE
[illegible]	AIR PRES. WHEN NOT PUMPING
[illegible]	STATIC LEVEL
[illegible]	Height of gauge above base
[illegible] FT. INCH PIPE	

Ray Randolph

WITNESS FOR PURCHASER — B-13 — FOR: RANDOLPH WELL & PUMP CO.

RANDOLPH WELL & PUMP CO.

R. D. 4, CORTLAND, N. Y.

Sheet 2 of ~~3~~ 2

Contract # FASTELD-73-1 Step Draw Down Test

Measurements taken top of Casing 9" above G.L.

RECORD OF TEST

Well No. 2 Date 6-5-73

For Dept of Transportation - Stat of New York

Well Located At Lowman N. Y.

[illegible]NE	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.	
[illegible]:00			42'8"	25	
[illegible]:15	44'2"			25	
[illegible]:30	44'2"			25	
[illegible]:00	44'2"	increased		37½	
[illegible]:15	44'10½"			37½"	
[illegible]:30	44'11"			37½"	
[illegible]:45	44'11"			37½"	
[illegible]:00	45'11½"	increased		48½"	
[illegible]:15	45'11½"			48½"	
3:30	45'11½"			48½"	
[illegible]:45				48½"	
[illegible]:00		increased ( )		65	
[illegible]:15				65	
[illegible]:30				65	
[illegible]:45				65	
[illegible]:00				65	
		end of 8 hr Step draw down test			

[illegible]e & size of engine or motor used: 3-H.P. Goulds Submersible #4TM30412

[illegible]arks: all measurements taken 9" above G.L.

DESCRIPTION OF PUMP USED

[illegible]E Sub. Pump

[illegible]ES 8

[illegible] 6"

[illegible]P NO. 3

[illegible]CHARGE 2"

[illegible]H OF SETTING 59'

[illegible]ION FT. INCH PIPE

SIZE OF PULLEY

INCH ORIFICE ON

WIDTH OF WEIR

DEPTH AIR LINE

AIR PRES. WHEN NOT PUMPING

STATIC LEVEL 42'8"

Height of gauge above base

Ray Randolph

WITNESS FOR PURCHASER

B-14 FOR: RANDOLPH WELL & PUMP CO.

RANDOLPH WELL & PUMP CO.

CONTRACT # FASTELD #73-1 R. D. 4, CORTLAND, N. Y. Sheet 1 of 2

16 hr. pump test

Measurements taken top of casing 9" above Ent.

RECORD OF TEST

Well No. 2 Date 6-6-73

For Dept of Transportation - State of New York

Well Located At Lowman

E	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.		
:00 A.M.			42'9"			
:00				65		
:15	47'1"			65		
7:30	47'1"			65		
7:45	47'1"			65		
8:00	47'1"			65		
9:00	47'1"			65		
0:00	47'1"			65		
1:00	47'1"			65		
2:00	47'½"			65		
1:00	47'1"			65		
2:00	47'1"			65		
3:00	47'1"			65		
4:00	47'1"			65		
5:00	47'1"			65		
6:00	47'1"			65		
7:00	47'1"			65		

e & size of engine or motor used: 3-H.P. Coulds Submersible #UTM30412

marks: all measurements taken w/ Electric probe

DESCRIPTION OF PUMP USED

PE Sub Pump

AGES 8

ZE 6"

OP NO. 3

SCHARGE 2"

PTH OF SETTING 59'

CTION FT. INCH PIPE

SIZE OF PULLEY

INCH ORIFICE ON

WIDTH OF WEIR

DEPTH AIR LINE

AIR PRES. WHEN NOT PUMPING

STATIC LEVEL 42'9"

Height of gauge above base

WITNESS FOR PURCHASER

Ray Randolph

FOR: RANDOLPH WELL & PUMP CO.

RANDOLPH WELL & PUMP CO.

R. D. 4, CORTLAND, N. Y.

Sheet 2 of 2

16 Hr. Pump TEST.

RECORD OF TEST

Well No. 2 Date 6-6-73

For Dept of Transportation - State of New York

Well Located At Fonda N.Y.

E	PUMPING LEVEL FEET	METER READING	STATIC LEVEL	G. P. M.	
:00	47'1"			65	
:00	47'1"			65	
:00	47'1"			65	
:30	47'1"			65	
		RECOVERY			
0:30	47'1"-PL.				
0:31	42'11"				
0:32	42'11"				
0:33	42'11"				
0:34	42'10 3/4"				
0:35	42'10 3/4"				
0:40	42'10 3/4"				
0:45	42'10 1/2"				
0:50	42'10 1/2"				
0:55	42'10 1/4				
1:00	42'10 1/4				
-73 (7:30)	42'10"				

e & size of engine or motor used:

arks:

DESCRIPTIO OF PUMP USED

:

ES

NO.

HARGE

H OF SETTING

TION FT. INCH PIPE

SIZE OF PULLEY

INCH ORIFICE ON

WIDTH OF WEIR

DEPTH AIR LINE

AIR PRES. WHEN NOT PUMPING

STATIC LEVEL

Height of gauge above base

WITNESS FOR PURCHASER

B-16 FOR: RANDOLPH WELL & PUMP CO.

00973
LRI